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Indonesia

Product Brief

Furniture Industry

2002

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Report Highlights:
The economic crisis has not affected the Indonesian furniture industries, including wooden floor and musical instruments manufactures, as ninety percent of their production utilizing imported woods are for export markets. The total direct import of U.S. wood products has experienced around 28%-35% increase between 1996 to 2000 (up to USD 48.1 million).The import of U.S. hardwood veneer for export market had been double up to over USD 6 million in 1999-2000 compare to an average of USD 3.3 million between 1996-1998. An average of 2.65 million M2 (USD 13.3 million) high quality of U.S. hardwood, Birds eye Maple, Cherry, Walnut, Ash and softwood veneer has entered this market via European countries (Germany), targeting only domestic market (Java and Bali islands).

Includes PSD changes: No
Includes Trade Matrix: No
Unscheduled Report
Jakarta ATO [ID2], ID

EXECUTIVE SUMMARY

The furniture industry in Indonesia was not affected dramatically by the economic crisis. In fact overseas market has taken advantage of this situation to gain more products with inexpensive price. Furthermore the situation has attracted more new overseas buyers. In 1998 the export of wooden furniture was down fifty percent from $527.2 million (294.5 tons) to $251.2 million (158.5 tons) due to political unrest. However, in 1999 and 2000 the export increased two folds compare to before crisis as much as $854 million (477.9 tons) and $1.1 billion (587.5 tons) respectively (see table 2). In year 2001 the industries predicted a forty percent decreased in export sales of $654 million (352.5 tons) as a result of September 11 tragedy in USA (see graph 1). The main production lines are industrially-made home furniture and decor utilizing tropical wood like Meranti (*Shorea spp*), Mahagony (*Swietenia spp.*), Rubberwood (*Hevea spp.*), Pine (*Pinus spp.*), and Agathis with major markets of USA, Europe and Japan.

The Indonesian furniture manufacturers used over 90 percent local wood in their production and the rest 10 percent imported woods, including U.S. wood products. The type of U.S. wood products entering this market are mainly in the form of hardwood logs at an average of 46,465 M³ per year with approximate value of $17 million since year 1996 to 2000 (see table 1). All imports experienced between 40 to 50 percent decrease in year 2001 for similar reason of declining Indonesian export except for softwood logs and veneer. These hardwood and softwood logs went through several process by furniture manufacturer into fancy plywood, lumber and veneer according to their needs in furniture making, whereas imported lumber were further processed into wood floor. The import of U.S. hardwood veneer for export market had been doubled up to over $6 million in 1999-2000 compare to an average of $3.3 million between 1996-1998. The main U.S. hardwood species are Oak (*Quercus spp.*), Maple (*Acer spp.*) and softwood Pine (*Pinus spp.*). Some of high quality of U.S. hardwood and softwood veneer entered this market via European countries, targeting domestic market only at annual average of 2.65 million M² with approximate value of $13.3 million. The species include Oak (*Quercus spp.*), birds eye Maple (*Acer spp.*), Cherry (*Prunus serotina*), Walnut (*Juglan spp.*), Ash (*Fraxinus spp.*) and softwood Pine (*Pinus spp.*)

I. MARKET SITUATION

The market for U.S. logs for fancy plywood and lumber for furniture did not experienced any down turn during the crisis. However, the productions dropped down between 20 percent up to 60 percent after the September 11 tragedy in the United States. The main market for fancy plywood and furniture are overseas buyers from major countries like USA, Canada, Europe and Japan. On the other hand the import of U.S. veneers for furniture have always been steady regardless of the economic crisis. The majority of their customers are local high-end communities in big cities (Jakarta, Semarang, Surabaya, and Bali) for private residences, luxury apartments, expatriates and Embassies, four and five star hotels, stores/shops in malls, and offices.

Supplier

It was not until early 1990 that U.S. wood products became more popular in this country for **domestic** furniture industries and interior designers. There are only two major importers and distributors for lumber and veneer in Indonesia that serve as wholesaler and retailer to local custom-made furniture manufacturers, interior designers and contractors. They bring in U.S. lumber at a total of 5,550 M^3 ($2.9 million) per year from USA and Canada. However, they regularly purchase U.S. veneers about 2.65 million M^2 every year from German, Swiss, and Belgium, due to high quality and precision thickness of veneer as well as less expensive price compare to USA. Sometimes they ship in other wood products from European countries along with other products from different origin countries. Both companies utilize lumber and veneer to manufacture exclusive high-end furniture for designers, contractors, expatriates, five star hotels, shops in modern malls, residential and luxury apartments in big cities of Java. They also manufacture exclusive custom-made furniture for few furniture outlets in Jakarta areas. Only one of the two has distributors in Semarang and Surabaya to supply several high-end furniture outlets, including a few in Bali.

One of the above company import U.S. logs and veneer logs, that own fancy plywood and veneer manufacturing facilities for local furniture manufacturers. Annual average import of logs is 4,500 M^3. Sixty percent goes to the productions of fancy plywood, twenty percent each for furniture and wood floors. Over 435 M^3 of veneer logs is imported every year to meet the local customer demand on specific thickness (0.4 - 0.6 mm), thicker than U.S. 0.3 mm-standard. They also producing and import several line of value added materials for furniture like veneer edging in replacing solid timber edge-strip, veneer inlay and marquetry for table tops, doors, cabinets, wooden-wall panel and any architectural wood design.

Only one large flooring company importing sawn timber directly from USA with annual rate of 7,000 M^3. Though their capacity for wood floor export is 150 containers (20 ft) every month, generating about $15 million each year, they mainly use local tropical woods. This company also produces local plywood with export capacity of 150 20ft-containers per month and furniture with export capacity of 200 20ft-containers per month.

Currently their main suppliers for U.S. logs, veneer logs and lumbers are US Coastal Lumber, Interforest Canada, and American Lumber. U.S. veneers main suppliers are NV Coplac Belgium and Interforest Canada (both of Danzer Group Company in Germany), and Great Lake Wisconsin, also veneer edging supplier Heitz, Furnierkantenwerk-Germany. On April-June 2001, one U.S. supplier exported about 2,350 tons (4,233 M^3) of logs (60 percent), veneer logs (30 percent) and lumber (10 percent) to Jakarta (53 percent), Surabaya (25 percent), other ports in Java (20 percent), and Kalimantan (2 percent). Most wood species were 80 percent Red and White Oak (*Quercus spp*.) and the rests were Ash (*Fraxinus spp*.) and Maple (*Acer spp*.).

Table 1. Value of Indonesian Direct Import for U.S. Wood Products 1996-September 2001

Wood Products	Value in US $Thousand					
	1996	1997	1998	1999	2000	2001*
Hardwood logs	$21,327 (52,946 M^3)	$21,341 (54,315 M^3)	$18,156 (42,996 M^3)	$12,940 (36,878 M^3)	$17,041 (45,191 M^3)	$9,054 (18,421 M^3)
Hardwood lumber	$6,085 (11,730 M^3)	$8,740 (16,494 M^3)	$8,180 (16,640 M^3)	$11,286 (20,464 M^3)	$13,090 (25,694 M^3)	$5,851 (12,834 M^3)
Softwood logs	$310 (927 M^3)	$330 (1,366 M^3)	$795 (6,922 M^3)	$511 (3,805 M^3)	$265 (1,488 M^3)	$1,808 (7,581 M^3)
Softwood lumber	$2,355 (9,776 M^3)	$1,664 (7,430 M^3)	$3,132 (13,498 M^3)	$5,484 (19,180 M^3)	$9,431 (41,715 M^3)	$6,134 (22,264$M^3$)
Hardwood Veneer	$3,011	$3,584	$2,961	$6,157	$6,610	$2,861
Softwood Veneer	$54	$19	$120	$12	$674	$697
Others	$2,538	$1,895	$2,478	$2,149	$1,002	$1,603
TOTAL	**$35,680**	**$37,573**	**$35,822**	**$38,539**	**$48,113**	**$28,008**

Source: $A/FAS -Forest & Fisheries Product Division , Circular Series WP05-01 Dec 2001
*Note: *Total value (and volume) of January-September 2001*

Buyers/Customers

1. Furniture Industries

Most of furniture industries established in Indonesia with mass production capability hardly utilize imported wood products but local woods. In certain occasion, based upon request of foreign companies, they direct import themselves some type of wood, including U.S. wood products such as Oak, Beech, Maple, Walnut, Cherry, and Pine veneer at an estimate of 280,000 M^2 per year of all type in East Java mostly.

All of these large furniture manufactures have their own wood processing facilities, from log to lumber cutting machineries until finishing and polishing equipments. Primary local wood utilized for manufacturing similar design style furniture for export market are Meranti (*Shorea spp*), Rubberwood (*Hevea spp*.), Mahagony (*Swietenia spp.*) or Mahonie (*Swietenia macrophylla*), Bangkirai (*Shorea spp*), Pine (*Pinus spp*.), Agathis, and secondary wood such as Nyatoh (*Palaquium spp*.), Sonokeling (family *Polyathia spp.*) and Ramin (*Gonystylus banacanus*). Mass production lines of wooden furniture are kitchen sets, bedroom sets, dining room sets, other household furniture, tables and desks for den areas including carved fireplace mantels, some wooden door and baby cribs. Most of them are

45 percent located in greater Jakarta area and 55 percent in East Java (Surabaya, Gresik, Pasuruan, etc) with total export capacity of over 1,400 20ft-containers per month. The other type of industries producing antique-reproduction, colonial style and outdoor furniture are concentrated in Central Java (Jepara, Yogyakarta, Semarang) with export capacity of 360 20ft-containers per month, using mainly tropical wood species like Mahagony (*Swietenia spp*.), Agathis, Bangkirai (*Shorea spp*), Kruing (*Dipterocarpus spp*.), and Teak (*Tectona grandis*) . West Java area like Cirebon specializing in rattan furniture productions for export about 550 20ft containers every month. The overseas export markets of all furniture types are USA, European countries, Japan, Korea, Taiwan, Australia and New Zealand.

Central Bureau of Statistic Indonesia and the Indonesian Furniture Industry and Handicraft Association (ASMINDO) reported that in year 2000 the Indonesian total export value for wooden furniture has reached $1.09 billion with the highest production of total volume 587,451.4 tons. The industry with 600 companies expect at least 10 percent increase in year 2001 up to $1.14 billion (see table 2). However, according to some manufacturers they experienced between 40 percent declined in production due to the September 1, 2001 tragedy. They expect to rebound quickly following the pattern of 1999 export after the political unrest in 1998. Due to inexpensive production cost, the export increased 3 folds. Their top three designated export markets are USA over 50 percent followed by Japan 30 percent and European countries 15 percent. The rest 5 percent are Australia, Middle Eastern and other Asian countries.

Table 2. Indonesian Export of Wooden Furniture

Year	Volume (Ton)	Value (US $)
1996	233,977.3	547,463,731
1997	294,454.1	527,244,512
1998	158,483.8	251,206,640
1999	477,943.4	854,037,063
2000	587,451.4	1,091,137,680
2001*	352,470.8	654,682,608

Source: Central Bureau of Statistic Indonesia & Indonesian Furniture Industry and Handicraft Association (ASMINDO). ASMINDO has 600 members out of total 3,500 manufacturers in Indonesia. The 600 members export 90 percent of their products overseas.
*Note: *Estimate figure*

2. Other Industries

2.1. Flooring Industry

Only one company dominated the flooring industry in Indonesia with export capacity of 75 40 ft-containers per month (60,300 M³ per year) to 68 countries around the globe. They import sawn timber directly from USA about 4,056 M³ per year and 2,704 M³ per year from Europe, Russia, Africa, Canada, or China. The type of imported U.S. woods are 40 percent White Oak, 25 percent Beech, 20 percent Red Oak, 15 percent Cherry (or mix between Maple, Walnut, Pecan and Pine). U.S. share for this flooring industry is 60 percent whereas other countries only 40 percent. European red oak and other species are less expensive but sometimes supply is low. This company always has at least 3,000 M³ of total stock readily available. All 98 percent flooring products goes to overseas markets. The rest of two percent only for local markets. One other company imports an estimate of 1,217 M³ of U.S. logs such as Oak, Maple, Cherry, and Walnut for flooring manufacturers every year for domestic markets only.

2.2. Musical Instrument Industries

There are at least five large manufacturers of musical instruments in Indonesia with the annual capacity of producing 32,000 sets of piano, over 600,000 sets of electric and acoustic guitars, and 80,000 sets of drums. All are for export, with their first three top markets: USA, Japan, and European countries. Approximately twenty other medium to small industries scattered around big cities in Java for local market. Some of them may provide custom-made musical instruments, modification, repair and maintenance services, which is very insignificant. Most of the imported U.S. wood products enter this industry **indirectly**, via Taiwan, Korea, Canada or Europe. The largest musical instruments manufacturers are actually foreign companies, with brands like Yamaha, Samick, and Cort. If the demand is high on certain U.S. wood type, each manufacturer may import directly in the form of logs, which then process them into lumber or veneer as needed in their own facilities.

A. Guitars:

Local plywood such as Pine (*Pinus spp*), Agathis, Nyatoh (*Palaquium spp*), Meranti (*Shorea spp*) are used in the production of the back part of acoustic guitars with and average consumption of 4,800 M³ per year and solid wood of Mahagony (*Swietenia spp.*) for electric guitars. They normally use local Makassar Ebony (*Diospyros spp.*) and imported Spruce (*Picea spp*) or Alder (*Alnus spp*) for top board of acoustic guitar. One company utilizes Spruce (*Picea spp*) at about 357 M³ per year for the front/top board of acoustic guitars which come in from their other manufacturing facilities in Taiwan. Occasionally, based on requests, imported veneers are used for coating the top part of acoustic guitars, including the rosettes, mostly Cherry (*Prunus spp*), Oak (*Quercus spp*). Local wood Sonokeling (*Polyathia spp.*) and imported U.S. or Canadian Maple (*Acer spp*) wood are particularly used for the neck of both guitar types. An average consumption of U.S. and Canadian Maple (*Acer spp*) lumber for guitars is about 1,474 M³ per year.

B. Vertical/Upright-Piano:

In the production of piano, those industries use Meranti (*Shorea spp*) for the body and Makassar Ebony (*Diospyros spp*), Spruce (*Picea spp*) or Poplar (*Liriodendron tulipifera*) for keyboards. They purchase lumber and pin-block about $720,000 per year and veneer for coating, such as Cherry (*Prunus spp*), as much as $360,000 in a year. Other type of veneer may occasionally be used based upon requests. One hundred percent of finished products are for export market. The consumption of lumber and veneer has dropped between 10-20 percent in 1998 and during the crisis as the production was down due to unstable political and economic situation as well as local forest deterioration which lead to limited source of raw materials. However, they expect a 20 percent increase in using more veneer in the next five year of their production.

C. Drums:

Drums production lines use mostly Meranti (*Shorea spp*) of local plywood products and Birch (*Betula spp.*) of imported plywood. The consumption of U.S. Birch plywood of (12 - 18 mm thickness) for this particular instrument is approximately 636 M^3 per year.

Distribution

U.S. veneer enters this country via Germany, Belgium and Canada directly to Jakarta. Then distributed by importer to distributors in Java only, i.e. Semarang Surabaya and Bali (see Appendix A, Chart I). There are two major importers for U.S. veneers in this country that serve domestic markets. They also own facilities for making furniture and its accessories or even machineries for cutting veneer log. They sell veneer to other small scale furniture industries and musical instrument manufacturers in small volume, as well as to interior designers, architects and contractors, high end shop, restaurants and offices, expatriates and embassies, four to five star hotels, and small retail outlets (distributor). If the volume is high, then each furniture or musical instrument manufacturers in Java normally import U.S. veneer log directly from USA. Over 80 percent of finished furniture products and musical instruments utilizing veneer are exported out of the country.

Most of log and lumber products are directly imported from US to ports of Jakarta and Surabaya (see Appendix A, Chart II). The importers are actually large scale furniture manufacturers and flooring industries. Approximately 95 percent of total productions that utilizes U.S. wood products will be exported out to other countries such as USA, Europe, Japan, and Australia. The rest 5 percent will go to local customers such as interior designers, architects and contractors, high end shop, restaurants and offices, expatriates and embassies, four to five star hotels, and small retail outlets (distributor).

Major problem in the distribution system in Indonesia is outside Java in particular. The products became very expensive along with unreliable shipping companies and lack of storage facilities at importer and distributor level to stock up.

Competition

In term of competition, German, Belgium and Canada are the main competitors for U.S. hardwood lumber and veneer products with 30-40 percent market share. New Zealand or Australia and China are the main competitors for softwood veneer and lumber products with 40 percent-60 percent market share. However, U.S. log has experienced 90 percent share of this market, especially white and red Oak (*Quercus spp.*).

As long as the price is competitive with other countries, U.S. hardwood and softwood products still have the opportunity to penetrate this market with a steady at least 5 percent annual growth rate. More aggressive promotion may create more market niche in other part of the country, especially outside

Java island.

II. MARKET ACCESS/OPPORTUNITY

For high-end customers the trends in furniture designs are following the western style, which is currently more on simple design or so called minimalist. Exposing more of wood patterns and its natural color. These type of customers look for style and trends regardless of high price. More imported wood products will be expected to enter this market.

Some furniture manufacturers have experienced difficulties in sourcing high volume of local tropical wood products due to over/illegal-logging activities and involvement of local government in exporting out (10 20ft-containers per month) other countries. Lack of government- reforestation activities lead to application of 5 percent quota by plywood manufacturers to each furniture manufacturer. In addition to that, environmentalist program limit the purchase of some restricted species like Ramin (*Gonystylus banacanus*), Teak (*Tectona grandis*), and some type of Ebony wood (*Diospyros spp.*). The concern from manufacturers that without activating reforestation programs and prohibit illegal cutting, local tropical wood supply will quickly be exhausted in the next five years. The industries switch to Rubberwood (*Hevea spp*) and Pine (*Pinus spp*.) in replacing some restricted tropical wood products. The opportunity for U.S. wood products to enter this market is rather difficult due to expensive price offered, high minimum orders, and unstable local currency.

Government policies

There has been no serious issues in term of government policies reported by the importers and manufacturers. No import duty apply for all logs and lumber but 10 percent value added tax. Oak sawn timber (HS code: 4407.91.100) and veneer has import duty of 5 percent and 10 percent value added tax.

III. FUTURE DEVELOPMENT

Demand for technology in veneer production locally would be feasible in the next five to ten years period of time. The industries expect to import more U.S. solid wood directly and process the veneer according to their needs in order to minimize the cost of manufacturing furniture.

The advantage of imported veneer to some importer and high-end customer is that it offers best quality and wide range of wood type/species whereas local veneer has very limited variety. The market for veneer will be steady, and also lumber, again with wide variety is the advantage.

Other products (especially U.S.) which may have opportunity in this market is MDF but it is more for substitute products, though before crisis one importer brought in 10 of 40ft-containers per year, too expensive. The problem for local MDF is that it is easily cracked, not sticky/intact. MDF from New Zealand and Australia dominate the market due to low price and short shipping time compare to at least 40-days long shipping time from USA. Again, as long as price is competitive enough there is market here in Indonesia, especially when the industries try to use less solid wood, for alternative products to protect the environment.

Left-over wood cuts/pieces from USA can be processed in Indonesian flooring industry by giving added value to wood floor with more attractive variety of motive, instead of being used as wood for fire-place.

Imported furniture may be very slim with very small market niche due to its exuberant price.

General Comments and Recommendations For U.S. Suppliers

In summary, the **main barrier** for U.S. hardwood products entering this market is the price with maximum 30 days cash on delivery compare to 120 days credit offered by other countries. In addition to that is the lack of promotion on type or variety of woods and products available for furniture industries to look for. The other important barrier to be considered: U.S. is lacking of good long term relationship with Indonesian importers. However, if the local company owned/managed by expatriates, they never encountered any problems in term of good relationship or even with payment terms/credits. Following are comments for U.S. suppliers from the survey conducted by U.S. ATO-Jakarta:

General Comments

Advantages	**Challenges (*Barriers to US Export*)**
• Once the relationship with U.S. suppliers have established, they are easy to work with.	• U.S. suppliers have not been very flexible in term of credit payments. European countries required no LC or 120 days credit with ongoing supplies and stocks.
• Provide best quality products (& samples), consistent supply, very clear grading rules of wood products.	• No approval for GSM program offered due to un-cooperative local and overseas banks.
• Shipping time always on-time with products arriving in perfect conditions.	• Price in general is more expensive compare to other countries and domestic products.
• Local government supports the industry as most imported wood products will be further processed and exported in form of furniture or other products.	• Long shipping time can be very costly.
	• U.S. suppliers lack of good long term relationship, even with their sole agent. Not familiar with local system and Indonesian culture.
	• Lack of promotion support on woods species and availability of products.

Source: U.S. ATO-Jakarta Survey Results, Nov-Dec, 2001

Recommendations

Work closely with regional cooperator such as the American Hardwood Export Council (AHEC) and Jakarta based FAS - U.S. Agricultural Trade Office (ATO) in promoting U.S. wood products by:

- Organizing a group of importer, distributor, contractor, furniture and wood-floor manufacturers to USA for technical assistance on U.S. wood product applications and get better knowledge on available U.S. species and their characteristics under the Emerging Markets Programs.
- Encouraging and supporting Indonesian importers and distributors to participate in trade shows conducted by FAS-U.S. ATO or local furniture exhibitions in order to expand their market outside Java and Bali for both U.S. wood products and finished furniture products. These activities may benefit the importers in identifying their distributors and agents in other islands throughout the countries.
- Organizing seminars on U.S. species, grades, and applications to importers and distributors, as well as flooring, furniture and musical instruments manufacturers.
- Educating/training local architects, designers, and contractors on U.S. wood product applications and characteristics of various available U.S. species.
- Assisting the Indonesian importers financially by offering Export Credit Guarantee Programs.

IV. POST CONTACT AND FURTHER INFORMATION

The U.S. Agricultural Trade Office in Jakarta maintains up-to-date information covering food and agricultural import opportunities in Indonesia and would be pleased to assist in facilitating U.S. exports and entry to the Indonesia market. Questions or comments regarding this report should be directed to the U.S. ATO in Jakarta at the following address:

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Homepage:http://www.usembassyjakarta.org/fas

Please contact our home page for more information on exporting U.S. food products to Indonesia, including *Exporter Guide: Indonesia*; *Food Processing Sector Report: Indonesia; The Retail Sector Report: Indonesia; Market Brief: Indonesian Fresh Fruit Imports, Market Brief - Indonesian Wine Imports; Hotel and Restaurant Industry: Bali*; *The HRI Food Service Sector Report: Indonesia; Market Brief - Indonesian Bakery Industry*; and *Market Brief - Indonesian Beverage Industry; Market Brief - Beef Livers and Chicken Leg Quarters.*

For more information on exporting U.S. agricultural products to other countries, please visit the Foreign Agricultural Service's Home Page: http://www.fas.usda.gov

APPENDIX A

CHART I: DISTRIBUTION FOR U.S. VENEER LOGS & VENEER

Note:
*Most of these companies have own veneer (and/or lumber) processing plants.

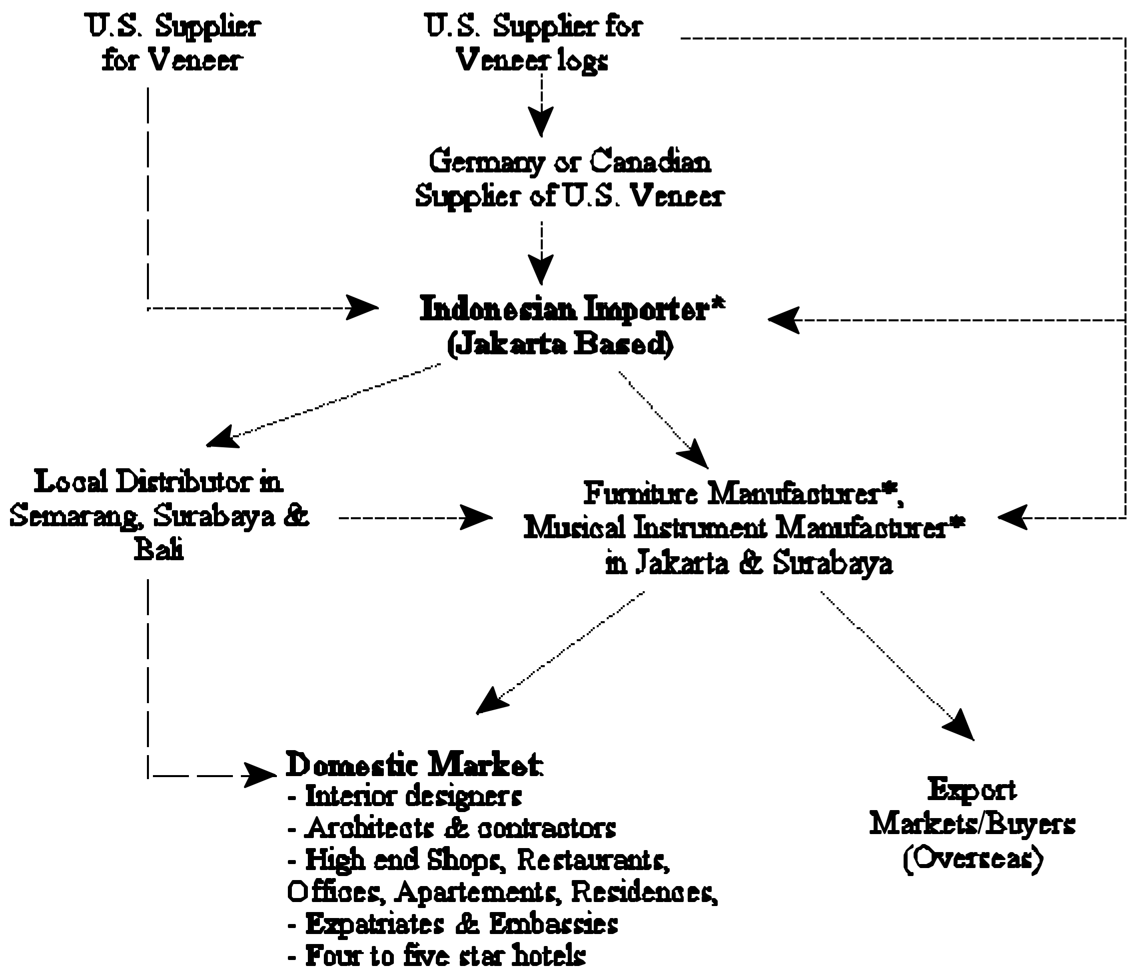
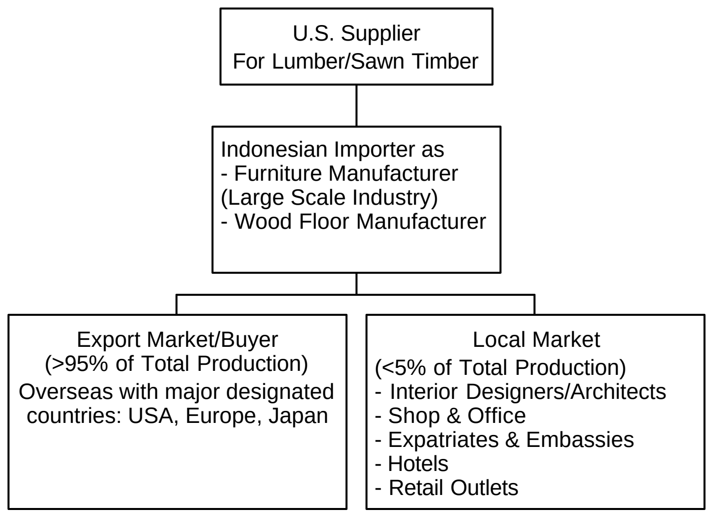


CHART II: DISTRIBUTION FOR U.S. LUMBER



APPENDIX B

LIST OF U.S. HARDWOOD & SOFTWOOD SPECIES IMPORTED INTO INDONESIA

Type of U.S. Wood Product	End Product Type	U.S. Wood Species (Common Name & Scientific Name)
LOG	Fancy plywood Furniture Flooring Veneer	Cherry (*Prunus serotina*) Hard Maple (*Acer saccharum, Acer nigrum*) Red Oak (*Quercus spp.*) White Oak (*Quercus spp.*) Walnut (*Juglans spp.*)
LUMBER/ SAWN TIMBER	Compliment for furniture edge, doors, cabinets, vanities, fireplace mantels, as hand-crafted accessories*	Cherry (*Prunus serotina*) Hard Maple (*Acer saccharum, Acer nigrum*) Red Oak (*Quercus spp.*) White Oak (*Quercus spp.*)
	Flooring	Cherry (*Prunus serotina*) Hard Maple (*Acer saccharum, Acer nigrum*) Red Oak (*Quercus spp.*) White Oak (*Quercus spp.*) Pecan (*Carya spp.*) Pine (*Pinus spp.*); Southern Yellow Pine Walnut (*Juglans spp.*)
	Musical instruments: Piano keyboard: Guitar neck: Top/front board for guitar:	 Spruce (*Picea spp.*) Poplar /Tulip wood (*Liriodendron tulipifera*) Maple (*Acer spp.)* Spruce (*Picea spp*) or Alder (*Alnus spp*)
VENEER	Furniture	Red Alder (*Alnus rubra*) Ash (*Fraxinus spp.*) Beech (*Fagus grandifolia*) Birch (*Betula spp.*); White & Red Birch Cherry (*Prunus serotina*) Elm *(Ulmus spp.*) Maple (*Acer saccharum, Acer nigrum*) Red Oak (*Quercus spp.*) White Oak (*Quercus spp.*) Pecan (*Carya spp.*) Pine (*Pinus spp.*); Oregon Pine Sycamore (*Platanus occidentalis*) Black Walnut (*Juglans nigra*)
	Musical instruments such as acoustic guitar and piano.	Cherry (*Prunus serotina*) Maple (*Acer saccharum, Acer nigrum*)

Source: Data collection and estimation based on actual field survey to 12 furniture and musical instrument manufacturers, wholesalers and retailers, and wood products importers, conducted by U.S. ATO - Jakarta between Nov-Dec, 2001

*Furniture accessories include horizontal friezes, vertical pilaster, carved corbels, rosettes, scrolls and swags